

Every Drop is Beautiful

Save Water. Nothing Can Replace It.

The City of Arlington's conservation program is part of a regional effort to help plan for future water supply needs and meet the requirements of the Texas Commission on Environmental Quality and Texas Water Development Board. With reservoir levels decreasing and water capacity below normal, the City of Arlington is asking residents and businesses to comply with City ordinances and use water wisely. The City of Arlington appreciates your commitment to conserving water and we encourage you to save water and money by changing your water use habits today. For more water conservation tips, visit www.SaveArlingtonWater.com.

What is the hardness of my water?

The City of Arlington drinking water averages about 90 ppm or 5 grains/gallon. This is considered to be a moderately hard water.

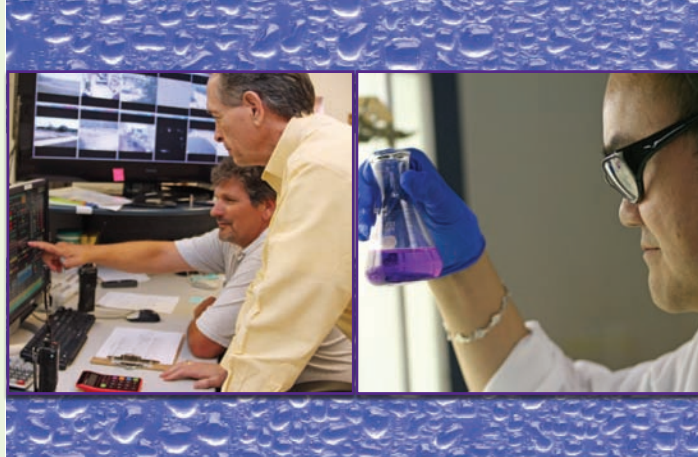
Hard water is water that has high mineral content (in contrast with "soft water"). Hard drinking water is not considered to be harmful to one's health. It is often indicated by a lack of suds formation when soap is agitated in water. With hard water, soap solutions form a white precipitate (soap scum) instead of producing lather. Hard water also forms deposits (scale) that may clog plumbing.

The scaling or presence of light colored particles in your home plumbing may be worsened because the water heater thermostat is too high. Most manufacturers recommend setting it about 120°F. Most manufacturers recommend that you flush your water heater annually to remove these deposits.

Here are some tips for flushing your water heater:

1. Turn off the power or gas to the heater.
2. Close the cold water supply valve. It is usually located at the top of the unit.
3. Connect a garden hose to the drain valve located near the bottom of the tank. Run the hose somewhere that you can drain the water (it may be hot at first).
4. Open the drain valve to discharge the water inside the tank. It will probably have some particles in it.
5. After the tank is empty, close the drain valve and open the cold water supply valve. Turn on the power or gas.

For more detailed information on flushing your water heater, contact your water heater manufacturer or visit their website for instructions specific to your model.



For more information:

Water Quality: 817-575-8984

Laboratory Services water sample requests, water quality questions or water quality problems. If you have questions concerning this brochure, ask for the laboratory.

Customer Services: 817-275-5931

Open new or transfer account, billing inquiries, water conservation, water and sewer rates.

Emergency Water, and

Sewer Services (24 hours): 817-459-5900

Service interruptions, water leaks, sewer problems

Tarrant Regional Water

District (TRWD): 817-237-8585

Texas Commission on Environmental

Quality (TCEQ): 512-239-1000

To participate in decisions concerning water:

Attend the Arlington City Council meetings, held on the 2nd and 4th Tuesday nights at 6:30 p.m. in the Council Chamber located at City Hall, 101 West Abram Street.

Meeting schedule is posted online at
www.ArlingtonTX.gov/citycouncil/meeting_schedule.html

To view City Council Agenda or to watch a City Council meeting webcast, please visit
www.ArlingtonTX.gov/citycouncil/agenda.html

Visit our website at:

www.ArlingtonTX.gov/water/studiesandreports_drinkingwaterquality.html

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Arlington Water Utilities

2012 Water Quality Report



Arlington Water Utilities has a rated capacity of 200 M.G.D. to meet water demand

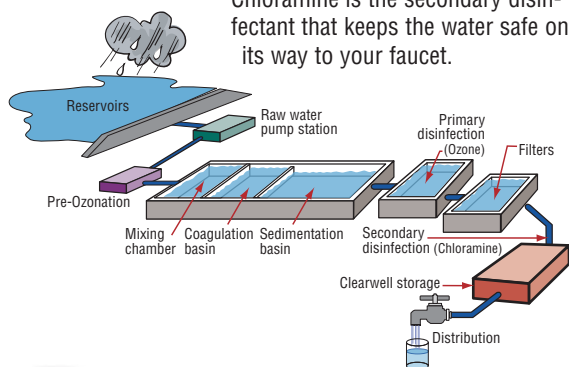
As you read through this report, you will notice that drinking water produced by Arlington Water Utilities meets or exceeds all Federal and State drinking water quality regulations. In most instances, substances found in Arlington water are well below the maximum allowable levels. The information included in this report reflects the data collected from January 1 through December 31, 2012, unless noted otherwise.

Este reporte incluye información importante sobre el agua potable y también está disponible en esta dirección de internet www.ArlingtonTX.gov/water/studiesandreports_drinkingwaterquality.html.

? How is the water in Arlington treated?

The water in Arlington is treated at two state of the art water treatment plants. Ozone is used as the primary disinfectant. Aluminum sulfate and a cationic polymer are added to help dirt and other particles clump together and settle out during treatment. The water is then filtered through granular activated carbon beds to remove smaller particles and substances that are dissolved in the water. The water is then chloraminated (treated with chlorine and then ammonia) as it enters the clearwell for storage.

Chloramine is the secondary disinfectant that keeps the water safe on its way to your faucet.



? Is Arlington water safe to drink?

Absolutely. Our employees take great pride in producing and delivering to you, our customer, water that meets all Federal and State regulations. To ensure the water we supply to our customers is of the highest quality and meets all water quality regulations, our laboratory analyzes over 4000 samples annually from our water supplies, treatment plants and at distribution locations throughout the city. This brochure is a summary of these results.



Health information for Special Populations

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly or immuno-compromised persons such as those undergoing chemotherapy for cancer; those who have undergone organ transplants; those who are undergoing treatment with steroids and people with HIV/AIDS or other immune system disorders can be particularly at risk from infections. You should seek advice about drinking water from your health care provider. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800-426-4791).



General information about lead

Where does lead in drinking water come from? If present, lead is introduced into your drinking water from plumbing fixtures and materials, not from the water source. Although lead was banned from use in pipe and solder in 1986, older homes may still have materials containing lead.

Did You Know...

Water Fact:

Water is the only substance on earth naturally found in the three rule element forms: solid, liquid and gas.

Water Fact

A gallon of water weighs 8.34 pounds.

Where does Arlington drinking water come from?

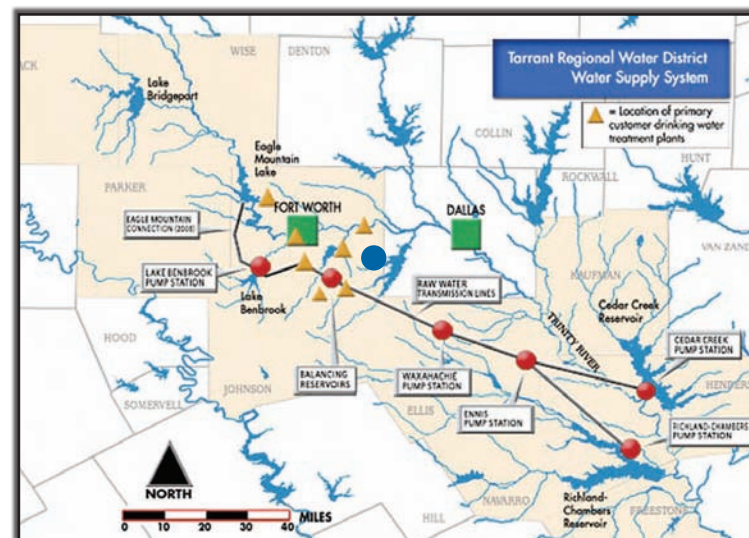
Arlington purchases its water for treatment from the Tarrant Regional Water District. The water is taken from four reservoirs. Cedar Creek, Richland-Chambers and Lake Benbrook supply the John F. Kubala Water Treatment Plant. Lake Arlington supplies the Pierce-Burch Water Treatment Plant.

Cryptosporidium Monitoring Information:

In 2012 Tarrant Regional Water District monitored all raw water sources for Cryptosporidium and found none in the source waters servicing Arlington.

Cryptosporidium is a microscopic, disease-causing parasite, housed in a hard-shelled egg-shaped oocyst. When ingested, the oocyst splits open, releasing sporozoites. These sporozoites invade the lining of the gastrointestinal tract and can cause an illness called cryptosporidiosis. Cryptosporidiosis is typically an acute short-term infection but can become severe and non-resolving in children and immuno-compromised individuals.

In addition to coagulation and filtration, Arlington uses Ozone (the primary disinfectant) to further protect against Cryptosporidium.





Emerging Water Quality Issues

Arlington Water Utilities' primary objective is the protection of public health through the delivery of high-quality drinking water.

EPA has a drinking water standard of 0.1 ppm for total chromium, which includes chromium-6. This standard is based on the best available science. EPA regularly re-evaluates drinking water standards and, based on new science on chromium-6, had begun a comprehensive review of its health effects in 2008. In

September 2010 the EPA released a draft of the assessment for public comment. The EPA expects to finalize the health risk assessment and make a final determination about the carcinogenicity of chromium-6. In 2012 total chromium was not detected in Arlington drinking water which would also indicate that hexavalent chromium was not present at a detectable level.

Water Fact:

An acre of corn gives off 4,000 gallons of water per day in evaporation.

Substances Expected to be in Drinking Water

The City of Arlington and the State of Texas both analyze your drinking water. Any regulated substances that were detected during the last year are shown in Table A. As shown in the table, all are well below the established maximum contaminant levels. All water dissolves substances from the ground as it flows over and through it. Substances that may be present in raw water include such things as:

- 1) microbes such as viruses and bacteria that come from septic systems, agricultural livestock operations and wildlife;
- 2) salts and metals that can be naturally occurring or the result of urban storm water runoff, industrial or domestic wastewater discharges or farming;
- 3) pesticides and herbicides that may come from a variety of sources such as agriculture, urban storm water runoff or residential uses;
- 4) organic chemical substances that include synthetic and volatile organic chemicals that are by-products of industrial processes and can also come from gas stations and urban storm water runoff;
- 5) radioactive substances that are naturally occurring.

Substances may be found in drinking water that may cause taste, color, or odor problems but are not necessarily causes for health concerns. For more information, please call Laboratory Services at 817-575-8984.

Water Fact:

Drinking more water leads to increased energy levels. The most common cause of daytime fatigue is actually mild dehydration.



Water Fact:

75% of the human brain is water and 75% of a living tree is water.

Just try living without it.

SAVE WATER. Nothing can replace it.

Visit www.SaveArlingtonWater.com. Learn how to do your part in saving our most precious resource – water.

The Environmental Protection Agency (EPA) Safe Drinking Water Hotline

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some constituents. The presence of these constituents does not necessarily indicate that water poses a health risk. In order to ensure that tap water is safe to drink, the EPA prescribes

regulations that limit the amount of certain substances in water provided by public water systems. The treatment process removes these substances from the raw water and provides further protection prior to sending it to the distribution system. More information about contaminants and potential health

effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline at 800-426-4791 or visiting the EPA web site at www.epa.gov/safewater.

Water Fact

There is the same amount of water on Earth now as there was when the Earth was formed.



Table A. Regulated Substances. These substances are regulated or are required to be monitored and were detected in Arlington tap water in 2012. None of the detected substances exceeded the regulated limits.

Substance	Units	Avg.	Min.	Max.	MCL	MCLG	Possible Source
Atrazine	ppb	0.13	0.13	0.13	3		Runoff from herbicide used on row crops
Barium (2012)	ppm	0.042	0.022	0.058	2	2	Erosion of natural deposits
Bromate ³	ppb	<5	<5	<5	10	10	Byproduct of drinking water disinfection
Chloramines ²	ppm	3.6	0.3	4.5	MRDL=4	MRDLG=4	Water additive used to control microbes
Fluoride	ppm	0.43	0.14	0.7	4	4	Water additive promoting strong teeth
Nitrate as Nitrogen	ppm	0.792	0.29	1.660	10	10	Runoff from fertilizers
Nitrite as Nitrogen	ppm	0.062	0.01	0.428	1	1	Runoff from fertilizers
Radioactive (2011)							
Radium 228	pCi/L	<1.0	<1.0	<1.0	5	NA	Decay of natural, man-made deposits
Beta/Photon Emitters	pCi/L	<4.0	<4.0	<4.0	50	NA	Decay of natural, man-made deposits
Gross Alpha Particle Activity	pCi/L	<2.0	<2.0	<2.0	15	NA	Decay of natural, man-made deposits
Total Coliform ⁴	%	NA	ND	1.09%	5% **	NA	Naturally present in the environment
Total Organic Carbon (TOC)							Naturally present in the environment
PB Plant (raw)	ppm	4.9	3.6	6.2			(PB = Pierce-Burch Plant)
PB Plant (drinking)	ppm	2.8	2.1	3.6			
PB Removal ratio ⁵	remov. ratio	1.2	1.0	1.5			
JK Plant (raw)	ppm	5.2	3.4	6.3			(JK = John F. Kubala Plant)
JK Plant (drinking)	ppm	2.9	2.2	3.6			
JK Removal ratio ⁵	remov. ratio	1.2	1.0	1.6			
Total Trihalomethanes ²	ppb	13.6	12.8	14.1	80	NA	By-product of drinking water chlorination
Trihaloacetic Acids (HAA5) ²	ppb	5.3	5.0	5.9	60	NA	By-product of drinking water chlorination
Turbidity ⁶							Soil runoff
Highest single measurement	NTU	0.12	0.03	0.50	TT=1.0	0	
% of samples < 0.3 NTU	%	99.8%	93.3 ⁷	100	TT=95%	NA	
Substance	Units	Action Level	No. Sites > Action Level	90th %-tile	Range	Possible Source	
Copper (2012) ¹	ppm	1.3	0	0.157	0.003-0.244	Corrosion of household plumbing systems	
Lead (2012) ¹	ppb	15	0	0.0015	ND-0.0057	Corrosion of household plumbing systems	

¹Instead of MCLs for lead and copper, EPA requires that 90 percent of water samples obtained from customers' taps contain less than the Action Level for each metal. Arlington's most recent survey of the required 50 homes shows no home exceeded the action level (sampling required every 3 years.) ²Compliance is based on a calculated running annual average of all samples at all sites. ³Compliance is based on a calculated running annual average of the quarterly averages. ⁴Coliform bacteria are used as indicators of microbial contamination of drinking water because they are easily detected and found in the digestive tract of warm blooded animals. While not themselves disease producers, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are more hardy than many disease-causing organisms. Therefore their absence from water is a good indication that the water is bacteriologically safe for human consumption. ⁵The MCL for total coliform is the presence of coliform bacteria in 5% or more of the monthly samples. ⁶Removal ratio is the percent of TOC removed by the treatment process divided by the percent of TOC required by TCEQ to be removed. Based on running annual average of ratios. TCEQ requires a removal ratio of ≥ 1.0 . ⁷Turbidity has no health effects. However, it can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms that include bacteria, viruses and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches. ⁸The City of Arlington Pierce-Burch Water Treatment Plant (PWS ID TX220001) failed to meet the minimum treatment technique requirements for the month of March 2012. Specifically, our water system allowed the turbidity of the filtered water to exceed 0.3 Nephelometric Turbidity Units in more than 5.0 percent of the measurements made during the month.



Other Substances of Interest

Substance	Units	Avg	Min	Max
Total:				
Alkalinity	ppm	82	77	92
Hardness	ppm	88	84	95
Hardness	grains/gal.	5.1	4.9	5.5
Calcium	ppm	29	5	32
Sodium	ppm	20	17	28
Magnesium	ppm	3	3	3
Chloride	ppm	18	12	23
pH	units	8.2	7.8	8.4



Table B. Unregulated Substances. These substances are not currently regulated by EPA. The purpose of monitoring for these contaminants is to assist EPA in determining their occurrence in drinking water and whether future regulation is warranted.

Substance	Units	Avg.	Min.	Max.	MCL	MCLG	Possible Source
Chloroform	ppb	5.2	3.6	6	Not Regulated	0	{ By-product of drinking water disinfection; not regulated individually; included in Total Trihalomethanes.
Bromodichloromethane	ppb	4.3	4.2	4.5	Not Regulated	0	
Chlorodibromomethane	ppb	3.5	3.2	3.9	Not Regulated	60	
Bromoform	ppb	0.5	0.1	1	Not Regulated	0	
Dichloroacetic Acid	ppb	3.87	3.66	4.21	Not Regulated	0	{ By-product of drinking water disinfection; not regulated individually; included in Haloacetic Acids.
Bromoacetic Acid	ppb	0.59	0.18	1.09	Not Regulated	0	
Dibromoacetic Acid	ppb	0.7	0.25	1.28	Not Regulated	0	
Chloroacetic Acid	ppb	0.06	ND	0.25	Not Regulated	0	
Trichloroacetic Acid	ppb	0.05	ND	0.14	Not Regulated	300	



Table Definitions

Action Level (AL) The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

<(xxxx) less than the amount listed.

≥(xxx) equal to or greater than the amount listed.

Maximum Contaminant Level Goal (MCLG) The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Contaminant Level (MCL) The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Residual Disinfectant Level Goal (MRDLG) The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

Maximum Residual Disinfectant Level (MRDL) The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

NA Not applicable

ND (Not detected) No level of the parameter was detected.

NTU (Nephelometric Turbidity Units) A unit used when measuring turbidity, a measure of the cloudiness of the water.

pCi/L (picocuries per Liter) A measure of radioactivity in the water.

ppb (parts per billion, ug/L) A unit of measurement roughly equal to 1 drop in 100,000 gallons.

ppm (parts per million, mg/L) A unit of measurement roughly equal to 1 drop in 100 gallons.

TT (Treatment Technique) A required process intended to reduce the level of a contaminant in drinking water.